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"Jordan, Kameron \(DEQ\)" <JORDANK@michigan.gov>
Date: 5/9/2013 2:02:04 PM
Subject: RE: Kalamazoo Lake Sediment Sampling Requirements
Attachments: DEQ Policy 09-018 Dredge Sediment Review.pdf
KzooLake_031504 (2).pdf

John,

Thanks for the inquiry. I've shared your questions with Mike Alexander, who is Chief of the Lakes Erie, Huron, and Superior Unit within Water Resources Division (WRD), and Mike has also had discussions with Paul Bucholtz with our Remediation and Redevelopment Division (RRD). I'll attempt to answer **(in bold)** your questions below based on feedback from these folks.

1. Whether they really need to do the bottom sampling since the harbor authority has done a significant amount of sampling throughout the lake. If so, the density of sampling seems high in comparison. **Because of the known concentrations of PCB's in Kalamazoo Lake, Section 6d of the attached Dredge Sediment Review procedure applies to these projects. This section requires that the at-depth sampling must be performed to characterize the quality of the newly exposed sediment. Apparently EPA also needs to approve all dredge projects within Superfund areas, so the at-depth testing language was reviewed and approved by EPA staff as well.**
2. Clarification of whether or not the silt curtain is necessary for hydraulic dredging (apparently this is typical for mechanical dredging but not hydraulic dredging). **Turbidity curtains must be employed regardless of the dredge method. I understand that hydraulic dredging may not disturb as much sediment, but due to the nature of the sediment and the timing of the dredging (during the typical no dredge windows of May 1-July 15 for Kalamazoo Lake), curtains will be required.**
3. What is the concentration associated with the "unacceptable" level of PCBs referenced in the draft permits? **Based on a review of the attached testing results as well as internal discussions with RRD staff, if the at-depth samples showed a composite PCB level of less than 1ppm we would not require anything further. 1ppm is also used as the threshold for successful remediation of PCB contaminated sites. If the samples came back higher than 1ppm we will coordinate with Mike and**

Paul for further direction…see next item.

4. Is covering of "unacceptable" levels of PCBs being required? If so, what are acceptable options for this? How will the area that needs to be covered be determined? **If at-depth sampling reveals PCB levels greater than 1ppm would be exposed, there are a few options. The area could be over-dredged and then backfilled with a 6-12" layer of clean sand, or the dredge depth could be modified to ensure that only sediment with acceptable levels of PCB's is exposed. I believe it's feasible for the contractor to collect several different depths for each at-depth sample without significantly increasing cost; maybe you can confirm this John.**

As far as the number of samples for these projects, Mike has agreed that we can require 2 samples for dredge projects up to 2,000 square feet, and 1 sample per 1,000 square feet after that, up to a maximum of 6 samples. This is consistent with the confirmation sampling that is done after environmental dredging to remediate sites with Part 201 contamination. It sounds like the only scenario where we would reduce the number of samples would be if a dredge project was proposed in the exact same area as the location of a previous at-depth sample, and was not proposing to dredge any deeper than the depth characterized by the sample. I should also note that this at-depth PCB testing would not be required for any of these sites in the future if they are only dredging to elevations that have been previously characterized.

I hope that the above information provides clarification on the procedure and testing requirement. Please do not hesitate to contact me with any follow-up questions. Thanks.

Derek Haroldson

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From: John Vigna [mailto:jvigna@king-macgregor.com]
Sent: Tuesday, May 07, 2013 12:13 PM
To: Haroldson, Derek (DEQ)
Cc: Jordan, Kameron (DEQ); Janik Greg; sergeantmarina@frontier.com; maj@datawise.net
Subject: RE: Kalamazoo Lake Sediment Sampling Requirements

Derek, per our conversation, I attended a meeting yesterday with Singapore Yacht Club and Sergeant Marina. They are concerned about and are seeking clarification of the following:

1. Whether they really need to do the bottom sampling since the harbor authority has done a significant amount of sampling throughout the lake. If so, the density of sampling seems high in comparison.
2. Clarification of whether or not the silt curtain is necessary for hydraulic dredging (apparently this is typical for mechanical dredging but not hydraulic dredging).
3. What is the concentration associated with the "unacceptable" level of PCBs referenced in the draft permits?
4. Is covering of "unacceptable" levels of PCBs being required? If so, what are acceptable options for this? How will the area that needs to be covered be determined?

All of these items add significant cost to the project that were not anticipated. We need to make sure we are not doing more than we need to as well as answering some unknowns so that costs can be determined and planned for, if indeed necessary.
The permittees are anxious to get answers to these questions so that they can continue moving forward with this process. If we could get clarifications/answers to these questions in the next couple days, that would be very helpful. The marinas are trying to make some decisions by weeks end. Thank you very much for your consideration.

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